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ABSTRACT

A developmental sequence of adult-infant social play is proposed in this paper. Many adult interactions with infants take the form of early social play, although such play is often thought to originate with the onset of peer interaction. The sequence of five levels proposed in this work is based on, and approximately reverses, the Howes (1980) peer play scale. Levels of the sequence concern: (1) complimentary and reciprocal social play; (2) complimentary and reciprocal play with mutual awareness; (3) simple social and simple object play; (4) object play with mutual regard; and (5) simple parallel play. Support for the developmental sequence is culled from pertinent literature. Each level is discussed. (RH)

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# THE EMERGENCE OF SOCIAL PLAY IN INFANCY: A PROPOSED DEVELOPMENTAL SEQUENCE OF INFANT-ADULT SOCIAL PLAY

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ABSTRACT

Adults engage in social interactions with infants from the moment of birth. Many of these interactions take the form of early social play, often thought to begin when peer interaction begins. This paper proposes a developmental sequence of adult-infant social play. The proposed sequence is based on, and approximately reverses, the Howes (1980) peer play scale. Support for the developmental sequence is culled from pertinant literature. The sequence is proposed as a starting point for futher discussion and research.

Infants, from the moment of birth, are engaged in social interactions with adults in their environment. Some of these interactions serve to meet the daily needs of the infant such as the rocking and patting to help the infant relax before sleep. Others are more playful in nature. These playful interactions are characterized by a mutual involvement of the adult and infant. They are lighthearted in nature and have social exchange and enjoyment as their only purpose. Though social play is often thought to begin when peer play emerges, early play between a caretaker and infant is a purely social activity. Only the adult and the child are involved, engaging in synchronized exchanges of smiles,sounds and gazes. This early play can be likened to a symphony or a ballet as it is a choreographed event.

Infants appear to be immediately prepared for social interaction with adults who respond appropriately to signals from the infant (Bowlby,1969; Trevarthen,1974). A newborn looks to the mother who smiles and vocalizes in response. The baby then begins to react with the whole body and a cycle of interaction is set up, a game has begun. From early on, infants respond differently to adults than they do to objects (Brazelton,Koslowsky & Main,1974; Trevarthen,1974). The response of an infant to a visual stimuli reveals whether the infant is seeing a person or an object. Infants pay affective attention to people that does not occur in response to objects. Arms and legs move slowly, the face becomes alert, and the infant smiles and vocalizes.

Early social interaction has been linked to a number of important areas of development. The ties between integrative processes, emotionality, social communication and play are strong. For example,this early mother-child play has been considered to be vital in the formation of the mother-infant relationship. If parents and infants are playful and enjoy interactions, infants have been found to be more securely attached (Beckwith,1985). Ainsworth (1974) determined that the mothers responsiveness to the signals sent by the infant during face-to-face play resulted in more secure attachment classifications at 12 months of age. Parent-infant play may help the infant regulate their affects to some extent as well. As a result, children are judged to be more securely attached at 12-18 months (Rogers,Sawyers,1988). Further, there is evidence that children who are securely attached at this critical separation stage can more easily move on to peer play and further development of social skills. The development of self-esteem is also linked to early social interaction. Infants appear to be preadapted to expect that a caregiver will be responsive to their signals but will also permit exploration and autonomy. These early reciprocal exchanges allow affect to be communicated between adult and infant and self-esteem starts to develop. Further, if the caregiver is successful at reading early infant signals the child is more likely to develop an

internal model of himself as a valued, self-reliant person (Bowlby,1969).

Early adult-child play allows the infant to learn and practice the rules of social interaction. These rules including mutual involvement, turn taking, role repetition and nonliterality are inherent in early mother-infant games. (Bruner & Sherwood,1976). The ability to interact with peers that arises in the next year may develop from the experiences in early infant-mother play rather than from those found in non-social forms of play (Vandell,Wilson & Buchanan,1980).

The capacity to play is central to the theory of development of psychological well-being proposed by Winnicott (1971). In particular, he emphasizes the child's early relationship with the primary caregiver. The "holding" environment Winnicott proposed occurs when a sensitive mother allows the infant the freedom to explore his environment while still protecting him from external pressures he is not yet able to deal with effectively. The earliest emotional communications occur in this "holding" environment and shape the future emotional life of the infant. As Nancy Curry (1986) stated "... the stage is being set and the cast is being assembled for the child's play and affective life."

Caruso (1988) suggests that the variety and contingent responsiveness that occur in early social interaction are key to play and learning. The variety of exploratory behaviors used by one-year-olds is related to success and sophistication in problem solving at one and two years of age (Caruso,1986). Additionally, several studies have found a link between early mother-child interaction and exploratory behavior. Rubenstein found five-month-olds with more attentive mothers used more exploratory behaviors at six months (Caruso,1984). High parental responsiveness is related to different types of exploration at 9 and 12 months of age as well. Further, 12 month olds whose mothers focus the infants attention on specific environmental aspects.are found to be more competent in exploratory play (Belsky,1980).

As infants mature several developmental trends emerge. Most obviously, the infant matures biologically and new skills and competencies ensue. Infants will become able to purposefully reach and grasp and locomotion skills will develop. Next, these skills become more elaborate and complex. Infants also acquire the ability to combine two or more resources in play. The emergence of the ability to coordinate attention toward a social partner and an object of mutual interest is regarded as an important developmental milestone. The process in which interactions develop from dyadic in nature to triadic takes much of infancy to complete (Bakeman & Adamson, 1984).

Does social play begin when peer interaction begins? My thesis is that social play actually begins in earliest infancy as one discernible form of interaction between adults and infants. Further, this development of social interaction with adults precedes in an orderly,sequential fashion much as peer social interaction does.

Howes (1980) has proposed a peer play scale that precedes through five levels :

Level 1 : Simple Parallel Play
Level 2 : Parallel Play with Mutual Regard
Level 3 : Simple Social Play
Level 4 : Complimentary/Reciprocal Play with Mutual Awareness
Level 5 : Complimentary/Reciprocal Social Play

I propose, and support through a review of the literature, that infant-adult social interaction is indeed play that proceeds through a sequence of development which approximately reverses the peer play scale of Howes (1980). This infant social play scale is proposed as a hierarchy that builds as the infant matures. Each level is seen as comprising part of the higher forms of social play. The child moves through these levels as he develops new skills, new modes of communication and a sense of self as separate from his mother.

The proposed adult-infant social play scale is described below.

**Level 1: Complimentary/Reciprocal Social Play**

The infant and adult engage in purely social play with the adult as the "object". The play is complimentary and reciprocal in nature as smiles, sounds and gazes are exchanged. Each partner in play relies on the other for the play to continue.

**Level 2: Complimentary/Reciprocal with Mutual Awareness**

Exchanges are still dyadic in nature but attention now shifts to objects. The adult presents objects to the infant for interaction and the infant attends only to the object. Both participants have defined roles but no social exchange occurs during the object play.

**Level 3: Simple Social/Simple Object Play**

The infant can now manipulate and initiate their own object play. Exploration and manipulation of objects predominates. The parent is still vital in providing constant social input but not simultaneous with object manipulations.

**Level 4: Object Play with Mutual Regard**

The infant has the ability to attend to both objects and adults simultaneously. He is now able to enter into "conversations" with adults about objects.

**Level 5: Simple Parallel Play**

The infant engages in solitary object play with an adult nearby. No social interaction is needed to maintain the play The child is able to engage in social play with peers at this point as well.

Support for this scheme is presented next by evidence culled from the literature. Age ranges proposed at each level are only approximations of when one might expect to see these social play behaviors emerging and consolidating.

**Level 1: Complimentary/Reciprocal Social Play (0 - 4 months)**

Piaget calls the period from 1 - 4 months the time of primary circular reactions. Infants spend much time watching and practicing their own body actions. Play at this age is characterized by vocal interchanges, repetitive and rhythmical activity and matching of facial expressions initiated by the infant. Soon after birth infants and adults exchange synchronized sounds, smiles and gazes. Mother-infant interactions tend to have a temporal pattern. The actions of both the mother and infant are needed to maintain this regular timing (Trevarthen,1977). During a play episode, the adult is almost constantly drawing the infant's attention and the infant smiles, coos or moves in response. Infants do not attend to all stimuli equally. Instead, infants respond to voices and eye contact and visually prefer people to objects (Brazelton,Koslowsky & Main,1974; Caplan,1973; Trevarthen,1974). At this age, the infant is not able to attend to object directed acts of the mother (Trevarthen, 1977). A caregiver who interacts based on the infants' signals provides a stimuli that is closer to the type the infant prefers (Stern,1974). The actions performed by the mother in response to the infant signals are not random but are contingent on these signals. This contingent responsiveness makes the mother an object of overwhelming interest to an infant. The infant responds and reinforces the adult behavior as well as providing the adult with feedback. Newson (1979) has stated that it is as if the infant is already fluent in a universal language of gestures involving synchronized movement of the head, eyes and brows, hands and fingers, arms and legs.Thus, a circular interaction is set up from the start. Each participant relies on the other to keep the game going and to provide appropriate feedback.

The "cough" game seen early in infancy is an example of one of the early social games. The infant coughs, often quite by accident, and the mother imitates the cough. The infant coughs again and the game has been set up. Likewise, early hand play during nursing is another example of a social game. Infants will suck in bursts and stop. During the pauses in sucking mothers talk to their babies and infants often reach for the face or breast. These games involve the previously stated rules of social games including mutual involvement, alternation of turns, repetition and nonliterality. Initially, the infant may be a passive participant in the play while the adult acts as though the child was playing. Through repitition the infant learns that their actions lead to a response from the adult. Further, this response is pleasurable. Thus the activity becomes truly reciprocal play.

Early communicative abilities are beginning during this first social play as well. Schaffer (1984) proposed stages in

communication development that correspond to the social play stages proposed here. According to his theory, during the period from two to four months the infant is in Stage 2 where he is attentive to people and makes frequent face-to-face contact. This early, purely social play of the mother and infant prepares the way for play with objects.

**Level 2: Complimentary/Reciprocal Play with Mutual Awareness (4 - 8 months)**

At this stage play is still dyadic in nature but centers around objects as infants turn away from face-to-face play toward exploration (Bakeman & Adamson,1984). Infants now become object oriented (Schaffer,1984; Stern,1974). Trevarthen (1977) reported a significant change in communication at 16-18 weeks. Infants often refuse their mothers approaches by withdrawing their gaze and looking elsewhere. New skills are developing including reaching,grasping and mouthing. By 3 to 4 months of age gaze,smiling and vocalizing are integrated in play (Curry,1986; Stern,1974). The way the mother presents objects to the infants initially draws the child into play with objects. Additionally, the mothers intentionality with respect to objects makes early object relationships meaningful to the infant (McCall,1979). Passive joint engagement predominates now as both the adult and the child focus on the toy and are not aware of the actions of the other (Bakeman & Adamson,1984; Rogers & Sawyers,1988). A key point at this stage is that the infant is dependant on the adult to interact with the toy. For example, a baby may interact with a rattle but still needs the mother to present it to him and hold it for inspection.

After five months there is a marked increase in outside objects being brought into the infant-mother conversation (Trevarthen,1974). Mothers are so eager to maintain joint attention that initially they free the infant of the need to shift attention back and forth between object and parent allowing the child to concentrate on only the object (Bakeman & Adamson,1984).

**Level 3: Simple Social/Simple Object Play (7-13 months)**

Between 7 and 13 months of age stimulation forms of play by the mother decrease (Crawley & Sherrod,1984). Parents have more trouble engaging the child in interaction so toys are used to get attention (Papousek,Papousek & Harris,1987). Play is divided between object exploration and ritualized games with adults. Infants are now able to manipulate objects independently but still frequently stop play to use adults as social references. Various forms of exploration of objects dominates including mouthing and simple manipulation (Belsky & Most, 1981).

Piaget calls the 8 - 12 month period the time of coordination of secondary schemes. Infants now use skills acquired earlier in new situations and combinations. Skills are now extended to object play. Before 9 months mothers tend to imitate babies behaviors literally. After this age they match

the infants affective information but often in a different manner (Bretherton,in press).

Curry (1986) calls the months between 9 and 18 months the "practicing period". During this time locomotive skills develop allowing the child to engage in more object play and manipulation. At this stage the infant is incredibly curious and begins the exploration that will be the foundation of later thinking ability (White,1986). The role of the adult in infants play is changing. They now move to the role of safe base, limit setter and role model rather than the primary source of stimulation. Adults introduce new experiences and constantly reflect the activities and feelings of the child, mainly through language. Infants play with objects but constantly leave the object play to socialize with the adult. The infant looks away from the mother to bring an object into the conversation. He then looks away from the object back to the mother. This may develop from early instances of looking away such as those seen during Stage 1 of social play (Trevarthen, 1977).

During this time infants are beginning to show an interest in the play of others and imitation of adults and peers begins to emerge in play. Parallel play with peers is emerging at this time as well.

**Level 4: Object Play with Mutual Regard (13 - 18 months)**

When the infant reaches this level he is now able to attend to an object of interest and a social partner simultaneously. This ability to coordinate attention is considered to be an important developmental milestone. Interactions are now triadic in nature as objects become an important part of social interactions.

This coordinated joint play emerges from passive joint engagement and increases with age (Crawley & Sherrod,1984; Vandell,Wilson & Buchanan,1980). Bretherton (1988) suggests that around nine months of age a developmental spurt occurs which enables the infant to realize that their own thoughts and feelings can be shared with another person The period between 9 and 14 months has been called the period of the "intersubjective infant" by Bretherton and represents a time when the infant can begin to use the object as the topic of interaction with an adult. At this point infants will show or give toys to adults. Further, they try to use the objects to engage parents in interactions (Caplan,1971). Relational forms of play show a marked increase at 13 1/2 months. Functional-relational play also peaks during this stage (Belsky & Most, 1981). Games with toys have developed from the early shared experiences with objects.

This ability to coordinate attention marks a pivotal change in the infants communicative competence. The infant uses gestures or vocalizations to signal a desire to share attention and to establish the object as the topic of the conversation to follow. Schaffer's (1984) early communication theory supports this stage as well. The 8 to 16 month old is in Stage 4 and is

able to engage in interactions over objects.

This level may be simultaneously occurring with peers and adults. Perhaps the ability to coordinate attention applies to all social partners.

**Level 5: Simple Parallel Play (18 - 24 months)**

While children are developing the ability to engage in complimentary/reciprocal social play with peers they are also developing the ability to separate themselves from their mothers and play parallel to them. During this time children are struggling with the independence/dependence battle and are starting to see themselves as separate individuals (Curry,1986;Caplan,1971).

Other important changes are occurring as well. Piaget discussed the 18-24 month period as the time of invention of means through mental combinations. Problem solving skills are developing, object permanence is in place. Language now begins to become a system of communication as children move away from sensori-motor experiences. Schaffer (1984) places the 18 month old in Stage 5 of his communicative development sequence stating that they now develop symbolic representations and gain new social skills. By 21 months the child is well aware that he influences behavior and he now become the source of stimulation rather than relying on adults (McCall,1979). Pretend play emerges during these months as well. If development has preceded smoothly through the previous four stages of social play this stage may occur faster and with more ease.

Winnicott (1965) suggests that the capacity to be alone is one of the most important signs of emotional maturity. The basic contribution to this capacity is the experience of being alone as a very young child in the presence of an adult, specifically the mother. Ego-relatedness arises from the relationship between the infant who is alone and the dependably present mother. Being alone but in the presence of each other is important to both members of the dyad. This important ability to be "alone" emerges during this stage.

Again the role of the adult in play changes. Toddler learning depends in part on the freedom a child is given to explore his environment. There is now a shift from adult as participant to adult as audience (Curry,1986). Adults now provide the opportunity for new experiences while allowing the toddler to lead the play.

Rubenstein and Howes (1976) suggest that the peer is an important social object at 18 months. In their study of infants 17 -20 months old, they looked at infant-mother interaction with and without a peer present. When both the mother and the peer were in the room the children attended more to the peer than the mother. There was also less solitary play observed with a peer present than without. Rubenstein and Howes (1976) proposed that toddlers relate to peers because they share common play interests that mothers are less likely to share. Increased demands for attention from the mother at this age are often considered to be the child's way of dealing with the

separation conflict.
These same authors suggest that this increase in bids may simply represent an increased readiness for social interaction during play and a preference to share objects and play with another person. This concept fits nicely with the social play theory proposed here. As children have developed the ability to coordinate object play and social interaction they are now comfortable with this skill and anxious to use it in daily activities much as they use a newly developed skill in walking.

Howes (1988) states that complimentary and reciprocal play with peers emerges during the early toddler period of 13 to 24 months and increases in frequency with age. While infants are separating from the primary adults in their lives and becoming more independent they are simultaneously moving through the peer play scale stages proposed by Howes (1980).

**Discussion**

The previously presented information suggests that social play indeed begins in earliest infancy and progresses backwards through the stages proposed by Howes (1980). Further research is obviously needed to evaluate the validity of this sequence. A number of possible areas of further study include the relationship of this play scale to several important areas of development

Naturalistic observations as well as more controlled empirical research concerning validity of the proposed sequence needs to be done. Although the literature and practical experience suggests that this sequence does in fact exist, actual study of the sequence and the age ranges needs to be undertaken.

Further information concerning the relationship of this sequence to other areas of development will also be important. For example, does a child who does not have interactions such as those proposed suffer developmentally? What is the connection between this proposed sequence and attachment classification, self-concept or future play skills? Additionally, the importance of this sequence to children who have handicapping conditions could prove to be beneficial. Often in the concern over other areas of development the important area of play gets forgotten with these children.

The importance of affect and emotional development to this sequence may also be of interest. At a recent conference on creativity in infants, Demos (1988) discussed two children she has followed since they were six months of age. At three years, they are very different both in affect and play behavior. One infant she called Kathy was described as an easy baby with a mother who was not comfortable with direct interaction. At one month of age Kathys' mother interpreted her lack of smile as boredom and would offer Kathy a toy or turn away from her. At 7 months Kathy showed only mild interest in toys and retained sucking as the prominent mode of exploration. At 8-9 months, with the onset of locomotion skills, she began to take more initiative but would often be unavailable to the

mother for interactions. Between 16 months and 2 years her play was often repetitive and aimless when unsuccessful in engaging others in her environment. This developmental picture raises questions about her progress through this this proposed sequence. Is it the lack of affect that led to a disturbance in the developmental sequence of social play or is it the disturbance in the social play sequence that led to a lack of affect? Regardless, early social play and affect/emotional development are very closely linked.

Other questions that arise deal with issues more broad in nature. For example, does this sequence exist cross culturally or is it culture specific? What happens to this social play sequence in child care settings? Does the constant shift in caregivers stress this developmental sequence? Can caregivers who may not be as able to read and interpret infant signals for one reason or another adequately respond to these signals?

These and other questions arise as we begin to look at the possibility of this sequence. Some may argue that early mother-infant interactions are not actual play. I contend it is play in its purest form as well as the basis for more conventionally studied forms of play. The proposed sequence of adult-child play may represent an important area of development ignored to this point. There is no doubt that this play between an adult and an infant has an important role in the life of an infant. Just how important has yet to be determined.

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